Compendium of **Good Practices** in Linking **Civil Registration and Vital Statistics** (CRVS) and **Identity Management Systems**

ARMENIA

CASE STUDY 1

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Global Partnership for Sustainable Development Data

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Acronyms

CSARA	Civil Status Acts Registration Agency
EKENG	E-Governance Infrastructure Implementation Unit
EU	European Union
ID	Identity
ICT	Information and Communications Technology
UIN	Unique Identification Number

Acknowledgements

Executive summary

Armenia's identity (ID) system is a good example of a system that is built on cooperation between institutions that are responsible for civil registration and identity management using a holistic approach to civil registration, vital statistics, and identity management. The country's experience in building an identity ecosystem also shows that the two building blocks of identity systems – civil registration and identity management – do not have to be under one agency to be done successfully. The system may work just as well if different agencies are responsible for different aspects of it.

A similar level of integration can happen if the two systems are entrusted to more than one agency, as long as these agencies' systems are interoperable so they can share information. Two cornerstones of identity ecosystems in Armenia are the civil register, under the Ministry of Justice, and the population register, managed by the Police. Business processes for civil registration and identity management that used to be entirely paper-based and manual now are mostly digital. Some parts of the systems still rely on paper records, as digitizing civil registration records archives is ongoing.

Vital events

| Birth, death | Marriage, paternity, change of name | Adoption, divorce |

Informants

| 350 hospitals | Ministry of Justice territorial bodies | Courts |

Registration authority

52 territorial bodies of the Department for Civil Registration of the Ministry of Justice

Ministry of Justice — **CIVIL REGISTER**

Police

POPULATION REGISTER
- Address of residence database
- Citizenship database
- National ID database
- Travel document databases
- Voter register

National Statistical Service

Vital statistics database

State Registration Service registers
- Cadastre
- Driver's license
- Vehicle registration

Other functional registers
- Mandatory Medical Insurance Fund
- Ministry of Health
- Social Fund
- State Border Service
- State Civil Service
- State Financial Intelligence Service
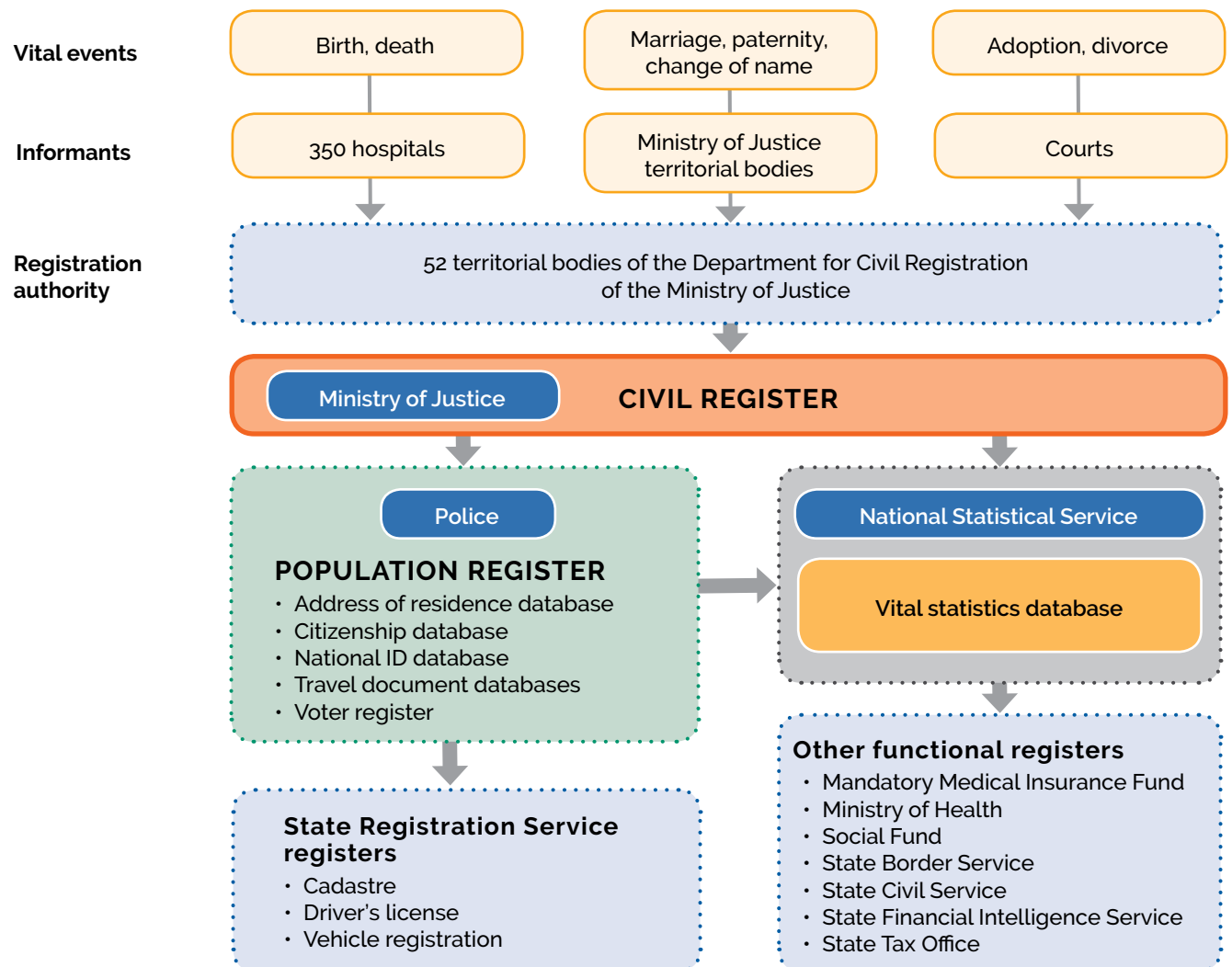- State Tax Office

Figure 1.1: Armenia's identity system.

Source: Author

Like most countries that emerged from the former Soviet Union, Armenia inherited a well-developed system for registering vital events:

- Births;
- Deaths;
- Marriages;
- Divorces;
- Changes of name;
- Paternity; and
- Adoption.

In legal terms, the registering of vital events is seen as the first recording of identity information that the state recognizes. The modern civil registration system is fully digitized: all registered information is entered directly into the electronic civil register. The system enables the digital vital events records that belong to a specific person to be linked, so that their up-to-date identity information is available anytime.

The civil registration and vital statistics system is also a main source of identity data recognized by the state. The data is used for identity management and issuance of identification credentials.

The population register is the main tool the Police use to manage identity data and issue national ID cards and travel documents. By law, the population register also contains the data that supports granting citizenship and keeps records of residents in local communities by registering their home address.

The population register is an electronic database. It was created, and the stock data was built, using the data from the database of issued national identity cards. Over time, other personal data was added, as defined by law. In this way, the population register collects layers of identity data as they are registered in the electronic civil register. Each time a new birth is added to the civil register, this information – which includes identity attributes of the newborn – is automatically sent to the population register, where a new personal record is created. Each time new layers of identity information for that person are added in the civil register, the information is sent to the population register and is used to update the personal record. As well as identity information, the population register features information such as which identification credentials have been issued (national ID card or travel document), citizenship, and home address. Information about a person's death is used to change the status of the personal record from active to inactive, and to retire this identity in the system.

Identity data sharing also happens in the other direction. Each time a new vital event is registered and the names of informants are added to the civil register, this digitized platform automatically pulls identity information for the informants from the population register. The decision to rely on the population register as a source of identity data is linked to the fact that not all identity information in the civil register is digitized, and therefore is not available. The population register already stores data in digital format. Also, it usually stores a wider range of personal information (such as ID document number) than the civil register does.

The two interoperable systems can in this way provide up-to-date information to other users of identity data from these registers. This approach is a key part of the government's electronic data-sharing platforms. This platform was designed to allow all government systems to benefit from the processing of up-to-date identity data.

Summary of good practices

Digitizing civil registration processes offers more opportunities to share data, register vital events, and get registration certificates in any office of the Civil Status Acts Registration Agency (CSARA).

Including an e-health platform, which can be accessed at hospitals, is also useful. This means the government can collect most of the information it needs to register births and deaths at hospitals, where digital and paper-based medical certificates are produced. These are later used for digitized processes for birth and death registration, including sending the data from the certificates to the statistics authorities.

Linking the civil and population registers electronically allows the civil register to copy identity data of informants or applicants from the population register, instead of copying that data from an identification credential that a person presents.

Using an innovative platform to verify civil registration certificates has made it easy to verify that a document is authentic, both in Armenia and abroad.

Data interoperability among government-operated information and communications technology (ICT) systems allows government to decide which types of data (including identity data) each service can access.

1.1 Introduction

General information

Country name	Armenia
Surface	29,743 km^2
Geographic location	South Caucasus; it is a landlocked country between the Black and Caspian seas, bordered on the north and east by Georgia and Azerbaijan, and on the south and west by Iran and Turkey.
Total population	2.93 million (World Bank 2018)
Share of urban population	63.8%
Official language	Armenian
Civil registration and identity management agency	Ministry of Justice (civil registration) Police of the Republic of Armenia (identity management)
Birth registration rate	99.6%[1]
Death registration rate	Not available
Identification coverage	Not available

Table 1.1: Armenia country information.

Armenia prides itself on being the first nation to formally adopt Christianity (early fourth century). Despite periods of autonomy, Armenia came under the influence of various empires, including Roman, Byzantine, Arab, Persian, and Ottoman.

Under the old Soviet central planning system, Armenia developed a modern industrial sector. It supplied machine tools, textiles, and other manufactured goods to sister republics in exchange for raw materials and energy. Armenia has since switched to small-scale agriculture and away from the large agro-industrial complexes of the Soviet era. Armenia has two open trade borders: Iran and Georgia. Its borders with Azerbaijan and Turkey have been closed since 1991 and 1993, respectively. This is due to Armenia's conflict with Azerbaijan over the Nagorno-Karabakh region.

Figure 1.2: Armenia geographical map.

Disclaimer: The boundaries used on this map do not imply official endorsement or acceptance by the United Nations.

The foundations of Armenia's identity system were well developed under Soviet rule. Civil registration, which dates back to the early 1900s, is rooted in the recording of births and deaths by the church. This task was later institutionalized under state authority and the responsibility of the Ministry of Justice.

Identification credentials in the form of an internal passport were also introduced under Soviet rule and issued by the Ministry of Interior. An internal passport was issued using identity data kept in the residents' register, which Soviet authorities operated as means to record individuals with a permit to reside within a specific local community. The internal passport was used as proof of identity and also as a residence permit within a specific territory. Over time, it has been upgraded to include facial image and increasingly used as an identification document in interactions with the state.

Armenia's declaration of independence in 1991 led to changes in how the state registered and managed the population's identity information. In 1992, the official Armenian national identity card began to replace the Soviet internal passport.

By that time, civil registration records largely reflected all vital life events of people living in Armenia. Certificates from the civil register were used as the main proof of identity for issuing the Armenian national ID card. Issuing a national identity card was also an opportunity to digitize the identity management process and to create a state population register. Records and data for a specific person in the population register were linked using their social fund number.

KEY DATES

1991   Armenia declares independence after the Soviet Union is dissolved.

1992   An Armenian national ID card is issued to all resident citizens. Information from applications is digitized and used to create the population register.

1995   Soviet internal passports are replaced with national ID cards. The population register is initiated.

2008   Photos are added to the population register.

2013   A unique ID number is introduced as a mandatory form of personal data (converted from the social fund ID number).

2014   Digitized civil registration begins at Ministry of Justice offices.

2017   The e-health platform is launched to collect information on births and deaths at hospitals.

Figure 1.3: Timeline of civil registration and identification in Armenia.

Once the population register was established, new types of identity data layers were introduced, such as facial image, which was collected in the process of reissuing national identity cards. An important milestone in the development of Armenia's identity system came in 2013 with the introduction of the legal requirement to assign: each person in the country was given a unique identification number (UIN). State-run ICT systems had to use this number when processing identity data.

When the UIN was officially in use, the Police (the custodian of the population register) became responsible for issuing the UIN. Since then, it has been issued right after a birth is registered. The UIN also paved the way for interoperability between the population register and the civil register as of 2014. Civil registration processes are now fully digitized. In 2017, the civil registration system expanded to include an electronic platform for notifying the government of hospital births and deaths.

1.2   Legal and institutional arrangements

Legal framework

Armenian legislation governing civil registration, vital statistics, and identity management has been upgraded to reflect the digitized nature of the processing of identity data. The legislation has built on the basic principles of the legacy regulatory framework governing the registration of vital life events and the issuance of national ID cards and travel documents. A rigid system of residence permits has been abolished, restoring the full right to freedom of movement. The internal passport ceased to function as a resident permit, and while it was still in circulation, its function was primarily to serve as an identification document.

Various laws govern civil registration and identity management:

◉ Civil registration is regulated by the *Law on Acts of Civil Status*[2] (2004).

◉ The *Law on State Register of the Population*[3] (2002) regulates the operation of the population register. The law states, "Authorized state bodies of the relevant fields are obliged to provide the bodies conducting register with personal registration data of the population" (Article 6). This was used as the legal basis for introducing administrative and technological interoperability between the population and civil registers. This was done to make sure that information defined under Article 6, which the Civil Status Acts Registration Agency (CSARA) is responsible for registering, is included. The law notes that "The main principles of the creation and conduct of the register are… [among others] [t]he availability of personal registration data to the bodies (persons) only having relevant powers defined by the law" (Article 4). This defines the responsibility and legal grounds to provide identity data, including by electronic interoperability with CSARA and other government systems.

◉ Identity management is also regulated by the *Law on Identification Cards*[4] (2011).

◉ The electronic processing of personal information is regulated by the *Law on Protection of Personal Data*[5] (2015).

Institutional arrangements

Since Armenia declared independence and set up its own institutions, responsibilities for civil registration and identity management have not changed very much. The Ministry of Justice is still responsible for civil registration, which is done by CSARA, an agency of the Ministry. Vital events are registered in the 53 territorial offices that CSARA oversees; the local administration appoints

registration officials. As part of registering births and deaths, the agency works with 350 hospitals. Since 2017, they have completed and processed birth and death notifications digitally as part of the civil registration platform. The e-health part of the electronic civil register operating in hospitals is linked with the National Statistics Committee. It communicates medical data related to vital statistics, such as cause of death.

Good practice: Sharing identity information among different authorities via digital platforms

The Police are responsible for identity management and for operating the population register. They issue national identity cards, travel documents, and driver's licenses – documents that are officially recognized as identification credentials and proof of identity. The population register was designed to store identity and other data of all members of the population who have established residency on the territory of Armenia.

The institutional set-up of civil registration, vital statistics, and identity management in Armenia offers an important example of how an identity ecosystem can be put in place without one authority being responsible for it all. Setting up electronic and data interoperability between the ICT systems of the Police and the Ministry of Justice shows that that the building blocks of a country's identity system can be distributed among different authorities without giving up efficiency, as long as they can share information electronically.

1.3 Civil registration

The civil register is a fully digitized system where business processes are built on traditional paper-based processes for registering vital life events. The registration is conducted in the Civil Status Acts Registration Agency's (CSARA) 53 territorial offices and by Armenian consulates abroad.

Under the law, identity data recorded as part of registering vital events from birth to death is the main legal proof of such data. All other state-issued identification credentials must reflect up-to-date identity information in the civil register. Building on this key policy, other government ICT systems that use identity data are directly digitally interlinked to the central civil register database.

As stated in the *Law on Acts of Civil Status*, CSARA is responsible for the registration of births, marriages, divorces, adoptions, paternity, changes of name, and deaths.

- As a rule, a birth is registered by one or both parents based on a document issued by a medical institution or a doctor. If the birth of a child occurred outside of a medical institution and without the presence of a doctor, registration is based on a statement by persons present at the birth and a document in a legally prescribed format stating the health of the child. If neither of these two conditions is met, a birth can be registered based on a court decision that confirms the fact of birth.

- Registration of a death can be completed at the deceased's last place of residence, at the place of death, at the place of discovery of the body of the deceased, or at the CSARA office of the organization that issued the death document. Completion of a death registration requires a death certificate issued by a medical institution or a doctor. Alternatively, a decision of the court can confirm the fact of the death of a person or declare a person dead.

◉ Marriage registration is completed based on a joint statement of the spouses. It is registered at the place of residence of one of the spouses or in the Matrimonial Palace (the spouses can choose). The marriage must be registered no later than 10 days before (but no earlier than three months before) the wedding. An application for marriage can be completed by only one of the persons planning to marry. Two witnesses must attend the marriage registration.

◉ Divorce registration can be completed based on a joint statement of the spouses or on the application of one spouse, if the other spouse is recognized as missing or incapacitated by a court decision or sentenced to prison for at least three years. Divorce can also be registered based on a court decision.

◉ Adoption is completed based on a court decision. The adoptive parents or the person they have authorized should submit the application for adoption at the CSARA office of the adoptive parents' place of residence or to the court that made the decision.

Digitizing the civil registration system

The electronic civil register is a central database that all CSARA territorial offices can access using a dedicated web application. Births, deaths, marriages, divorces, paternity, and changes of name are registered directly into the system. As part of this process, registration officials can look up and copy the identity data of informants or applicants from the population register.

Good practice: Having an e-health component means easier notification of vital events

To further automate birth and death registration, the digital civil registration platform has been expanded to include the e-health component as a web application executed on authorized computers at hospitals. Using the e-health application, medical workers can insert all information required for the production of a medical certificate and information further required for the registration of either birth or death. This medical certificate in the context of civil registration represents notification of vital events.

The identity data of a parent(s) registering a birth are entered directly from the population register once their UIN has been entered. The identity data of informants (parents) in the population register can be found by typing the person's name and date of birth. When registering a death, an informant's identity data, and those of a person whose vital event is being registered, are copied directly from the population register.

A medical certificate is given to the applicants and is then used to complete the registration of the vital event at the CSARA office. For registration officials, this document is used only to ensure access to the same medical certificate data in the e-health system. To help them look up the data in the e-health system, each medical certificate contains a special 12-character code (letters and numbers). The information is also given as a QR code – another way to look up the data in the source database.
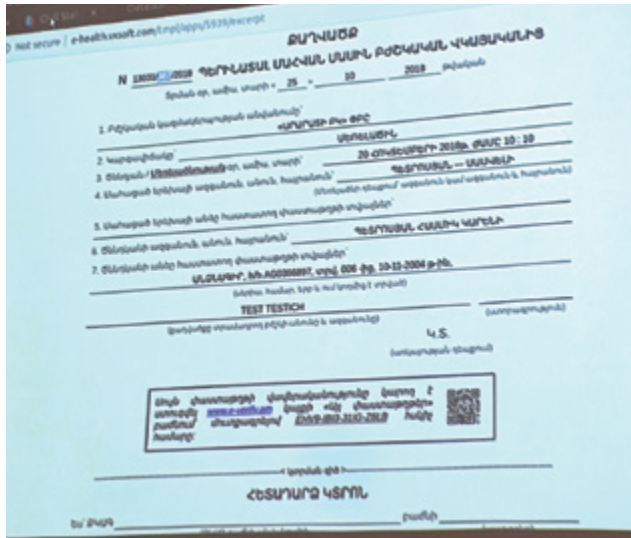
Figure 1.4: Armenian medical certificate.

To register at the CSARA office, people must present the medical certificate so registration officials can look up the information in the civil registration database. For birth registration, the registration official can access the electronic system of medical certificates to get the data needed, such as data about the mother of the child, the child's sex, the time of birth, and the number of children born.

The main information that registration officials need from the certificate is the 12-character code. It allows them to look up the information in the system. No information is copied from the paper certificate: all the information needed is copied directly from the civil registration database. This is why medical certificates are not produced on protected paper. In fact, registration officials do not require a medical certificate if the applicant presents the 12-character code to access the digital record. To reflect this new reality, the Ministry of Justice is developing a new legislative proposal.

It would regulate the issuing of medical certificates and other civil registration certificates as optional and issued upon request. The digital record would be seen as primary proof of a registered event. This implies that other government systems will benefit from direct access to this information for services that require identity proof from the civil register.

In some cases, the system allows manual data entry into the central civil register. For example, to register a death, if the death took place on Armenian territory, the official will look up the medical certificate using the 12-character code. If the death took place abroad, information from the medical certificate produced by foreign medical authorities is transferred manually into the system.

Good practice: Copying identity data directly from the civil register to the population register

Right after a birth is registered, information on the newborn's identity and data on the child's parents are sent from the civil register to the population register, where a new personal record is created. This is also done for other vital events. As new vital events add new layers of identity information, it is sent to the population register right after it has been registered. This ensures that identity data in the population register is kept up to date. When a death is registered, this information is sent to the population register, where the personal record is permanently retired.

## *A unique identification number is assigned during birth registration*

A unique identification number (UIN) – branded in Armenia as a public service number – is the key to interoperability of the two systems. This 10-digit code contains personal information, such as date of birth and sex. The UIN concept is not new to the Armenian identity system. Before the UIN was introduced, a social service number was widely used in Armenia as ID to link various types of personal information in different ICT systems.

The public service number has been assigned to most of the population who request a national ID card. If a person has acquired residence status or has not yet been assigned the number, it is assigned when they submit a request to the Police. For all newborns, because the civil and population registers are linked, the UIN is assigned by the population register during birth registration.

The civil registration system in Armenia is also important abroad. Only about one-third of Armenian citizens live in Armenia. While Armenia has 3 million residents, a majority of 10 million Armenian citizens live outside the country – in Russia, the United States, and France. This leads to challenges for Armenian civil registration authorities and Armenian consulates abroad. Marriage registration records are the main priority for Armenians living abroad. This is shown by the total number of requested marriage certificates made both within and outside the country. Foreign authorities must verify that Armenian citizens who request a registration of marriage are not already married in their country of origin.

Today, the verifying of marriage records is done by routine correspondence between CSARA and the consulates. It is a long process that often involves looking up records in the marriage registration books. Due to the high demand for marriage certificates, marriage registration records are being given priority in the digitizing process.

Another challenge is linked to verifying registration certificates issued in Armenia. To make it easier to verify them and to boost trust in these certificates, CSARA has developed an online platform for this work. It can be used by any authority within or outside the country.
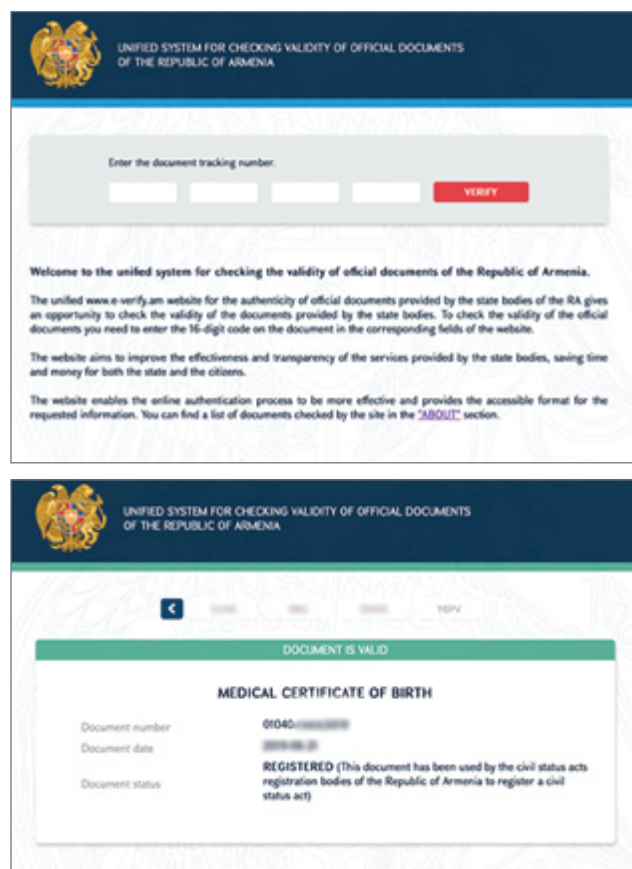
Figure 1.5: Online interface for verifying civil registration certificates.

Good practice: Setting up a dedicated online platform to verify issued vital event certificates

The website (e-verify.am) offers a simple interface that anyone can use to enter the 12-character code from the medical or civil registration certificate. This lets them find out if the document is valid. The website gives only the type of document and the document number – no other personal data. Government authorities who need registration certificates can use this platform to verify a document that a person presents, including at consulates abroad. For now, an agreement with the Russian authorities means they will recognize Armenian civil registration certificates as valid if they can be verified using this website.

As part of the broader e-government project, the government is developing an e-consulate platform to share data with consulates abroad. This platform will be a direct link with the electronic civil register. This will automate the processing of requests to verify civil status records and will greatly decrease the need for manual processing.

While civil registration business processes are fully digitized, only 2 million of a total of 10 million historical registration records have been digitized. This work is done by an external company that creates digital versions by transferring data manually and scanning records. Based on its investments so far, CSARA estimates that digitizing one record costs the agency US$1.

Identity data entered into the population register is not affected by the digitizing of historical records in the civil registration archives. Identity data already in the population register can be updated only when a new vital event is registered. It is no surprise that the digitizing of marriage records takes priority, as this is the historical vital event certificate that people request most often.
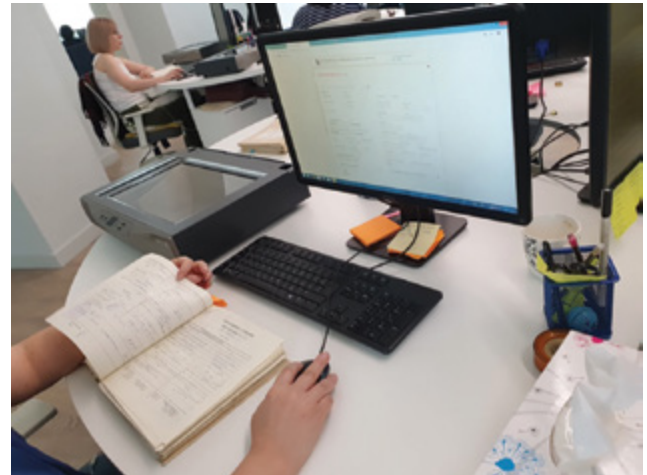

Figure 1.6: Workstation for digitizing civil records.

Vital statistics

The National Statistics Committee is the main producer of official statistics in the Republic of Armenia. The Committee coordinates all activities related to developing, producing, and disseminating official statistics through the system of national statistics, except for the Central Bank. To produce vital statistics, the Committee relies on two resources that are linked with the civil registration system.

- To produce medical certificates linked with birth or death registration, all medical data needed to produce vital statistics is extracted and sent automatically to the Committee. The e-health system automates this part of the process, allowing codes to be entered describing the cause of death, for instance, only as defined in the international classification system.

- The Committee gets other data linked to the registration of vital events directly from CSARA. This access is not automated. Data is shared as a report that CSARA produces.

1.4 State population register

Registration of place of residence has been a tradition in Armenia since Soviet times. Back then, it had a more totalitarian purpose: deciding who had the right to live in a specific community. It was used to control internal migration and keep certain groups within a certain territory. For example, it aimed to prevent rural populations from moving to the cities. After Armenia gained independence, the right to freedom of movement was fully restored, but timely registration of residents' addresses was still mandatory. Now people can choose to live wherever they want, as long as they can prove ownership or occupancy rights at their address. The authorities use registered addresses to plan and deliver services.

Since the Passport and Visa Department of the Police is the authority appointed by law to issue identification documents – such as the national ID card and travel documents – register place of residence, and maintain records of Armenian citizens, the ideal solution for processing personal data was to combine these three services into one ICT system. The result was the State Population Register.

The register was created in 2002, after the *Law of State Population Register* was adopted. The law defines all state authorities that are responsible for registering personal information in the register. The law further states that one purpose of keeping the population register is to make sure that personal registration data is available to the bodies (persons) that need it. This way they can deliver services and ensure that people's rights are respected as defined by the law. These two provisions were the basis for introducing interoperability with other government ICT systems that process personal information.

The population register stores the following types of personal data:

- Public service number (UIN);
- First name, last name, and patronymic name;
- Status (resident or refugee);
- Citizenship;
- Date, month, year, and place of birth;
- Sex;
- Home address;
- Data certifying the citizenship of the Republic of Armenia and/or of a foreign country and the right of residence in the Republic of Armenia (type, number, date of issue, validity period, issuing body);
- Date, month, year, and place of death; and
- Biometric data.

Making the Passport and Visa Department of the Police responsible for the population register made it much easier to collect data to create the register. The Department was already in charge of registering most types of personal data defined by law on the state population register: home address, issued identity cards, and travel documents. Identity data (first and last name, sex, date of birth and death) used to be sent to the Department in the form of civil registration certificates. Now that civil registration processes are digital, the new identity information is sent as soon as it is registered.

The population register was created using the database of national ID cards issued in Armenia that replaced Soviet internal passports in 1992 to 1995. The system is set up as a central population register: it is linked electronically with the registers maintained by local branches of the Passport and Visa Department. Each local population register keeps records of residents in a specific municipality. All personal data kept in these local registers is synched with the central one. The main purpose of local population registers is to reflect changes in residents' home address as they move within Armenia or abroad.

When the local branch of the Department gets the resident's application to register their new address, the branch sends this information to the central population register and to the local branch of the Department in the municipality where the applicant used to live. That branch removes this resident from its population register and transfers the entire personal record to the branch in the new municipality. The Department also uses the data from the population register to issue identification credentials: national ID cards and travel documents.

Business processes for issuance of national ID cards and travel documents are designed with the assumption that the population register should contain up-to-date identity data. Identity data in the population register is updated directly from the civil register for all changes in identity data which occurred after 2014 following the introduction of digitized civil registration processes.

◉ This means that for persons who approach the Passport and Visa Department to replace an expired ID card, or a passport issued after 2014, and get a new document, all new information affecting the person's identity data will be reflected electronically in the population register.

◉ Persons requesting an expired document issued before 2014 who have married, divorced, or changed their name will need to present the certificate from the civil register if the records have not been digitized in the meantime.

◉ Persons who have reached the legally defined age when an ID card becomes mandatory – or in the case of passport issuance to underage persons – must present a birth certificate, provided that the birth was registered before 2014.

◉ Once an identity is marked as deceased in the population register following the receipt of the death registration electronic notification, any attempts to issue an identification credential linked to that identity will be blocked by the population register system.

If information on a registered vital event is not in the population register, the information is transferred manually from the provided civil registration certificate to the personal record. The population register and the electronic civil register are linked, but the Police are not responsible for digitizing identity data in the civil register, which often happens in countries where one agency is responsible for CRVS and identity management. This means that where a birth certificate is not digitized, a person applying for an identification document needs to present their birth certificate. The data from the certificate is transferred digitally into the population register but is not shared with the civil register to create a digitized version of the original birth certificate. The authority for digitizing historical records remains by law with the Ministry of Justice.

Over time, as civil registration archives are digitized, people will no longer need to present civil registration certificates. Then the population register will truly reflect all layers of identity data that the Civil Status Acts Registration Agency (CSARA) has registered. When citizens register vital life events, all their identity data will be pulled directly from the population register. When they request a new ID card or a travel document, their identity data in the population register will reflect all registered vital events. If they need a document with data that does not match what is in the population register, this difference will first need to be reflected in the civil register, where it is registered as new vital event.

Figure 1.7: Armenian national ID card and electronic travel document.

1.5 Sharing information with other registers

One of the aims of digitizing governance processes is to ensure that all government systems that use identity data have the same up-to-date information. The first step in reaching this goal is to digitize ongoing processes and paper-based data. The next step is to make the systems interoperable.

Good practice: Adding interoperability gives government more control over how data is shared

The government's plan is that only one agency is responsible for registering each type of data. All information that agencies register and store, including identity data, becomes part of a large database thanks to interoperability between systems. This way, the government can decide which set of data each service can access. This is a major shift in how access to data is granted. In the past, the authority in charge of registering specific types of information would have a lot of control over who could access data in their possession. This created harmful power dynamics that made it difficult to make government services more efficient. With a layer of data interoperability, the government has more control over how information is shared across government systems.

When interoperability is set up well, a wide range of personal data does not need to be put in one register. Armenia's experience shows that while in early 2000, the solution was to collect information in a single population register, a similar level of data integration can happen when links exist between systems. Also, this approach allows other government platforms to benefit from up-to-date identity data. They can link their ICT systems directly to the electronic civil register rather than getting this data through the population register.

Identity data in the electronic civil register that is shared directly or through the population register is a key source of identity data for other government registers: the business register, cadastre (property register), and vehicle register.

The E-Governance Infrastructure Implementation Unit (EKENG) is the agency responsible for the framework of e-services in Armenia. It is in charge of the technical implementation of e-systems, such as e-Identity, and of developing an interoperability framework for e-governance infrastructures. In April 2014, the government presented the e-Governance Strategy 2014–2018. Based on this strategy, in February 2015 the government adopted an e-governance development action plan with the support of the donor community, in particular the European Union (EU). The strategic framework requires creating an effective and efficient e-administration to allow citizens to access faster, cheaper, and better services. In recent years, the government has put in place a number of activities aimed at improving service delivery by introducing good ICT solutions, such as

- business registration;
- judicial system management;
- registration of civil status for citizens; and
- vehicle registration.

1.6 The benefits of strengthening the role of civil registration in ID management

Being able to register identity information once and then access that information automatically through direct access to a source database means that business transactions cost much less and are more secure.

- Instant access to public services from a home computer means employees don't need to take time off work to pick up routine paperwork.
- When people are not working directly with personal data, corruption is less likely.
- The Ministry of Education gets regular updates from the Civil Status Acts Registration Agency (CSARA) on children who are reaching elementary school age.
- The e-notary system can access records of deceased persons to process inheritance cases.
- The credit bureau can access records of deceased persons that affect loans.

Access to social services

Social Services is one of the major users of civil registration data. Direct access to the civil register database means that families of newborns can receive benefits quickly. Social grants regulations state that families are entitled to US$105 for their first child, US$315 for their second child, and US$2,100 for their third child. Working with Social Services, CSARA has developed a procedure that allows parents of newborn children to provide all the information needed to process the social grant application when they register the birth, including the bank where the grant is to be sent. Parents can expect to receive the grant within 10 days of submitting the application. CSARA plans to develop similar one-stop shop processes for benefits to the families of people who have died. To prevent any financial losses as a result of pension transfers to deceased persons, CSARA sends the pension authority the information on all persons who have died.

The voter register is another important country-wide database whose accuracy depends on up-to-date identity data. To make sure that information in this register is accurate, all persons who have reached voting age are included on the voter lists, and all deceased persons are quickly deleted from the lists. The information on home address ensures that voters are placed in the correct polling station area. The population register is the only database that combines both types of information with up-to-date identity data, thanks to direct and timely sharing of data from CSARA.

Financial considerations

Digitizing civil registration is possible because of financial support from the EU. The total amount invested in digitizing was not made public at the time of this research, but it is estimated at around US$2 million. The digitizing of historical records is estimated at US$1 for each vital event record.

A 2018 white paper on the digitization strategy (developed for the previous Armenian government with EU assistance) created a framework to fully digitize government services by 2030. The guidelines feature the following focus areas:

◉ Cybersecurity;

◉ Digital infrastructure;

◉ Government efficiency;

◉ Tech-oriented private sector; and

◉ Tech-savvy workforce.

According to the framework, once E-Gov is fully in place, it will

◉ reduce the cost of government services by 50 percent;

◉ greatly reduce corruption;

◉ increase competitiveness; and

◉ add 3 percent to the growth rate of Armenia's gross domestic product.

Conclusion

Armenia's CRVS and identity management reforms reveal the authorities' aim to transform the country's identity system and make it more efficient. Although the system used to be paper-based, it had all the elements of a holistic approach to CRVS and identity management. It also shows that integrating CRVS and identity management is not the only way to create a holistic approach.

The Ministry of Justice, which is responsible for civil registration, and the Police of the Republic of Armenia, have developed a solid framework for working together. This enables them to share identity information as defined by law and has led to greater efficiency and integrity of the overall identity system. This approach has helped to close many gaps that could lead to identity fraud. When a nation-wide layer of data interoperability was added, procedures were put in place to regulate cooperation between the two agencies.

Digitizing civil registration processes and keeping registered data in digital form has made it possible to introduce many innovations. Civil registration records can now be verified by directly accessing information in the civil register.

By developing a dedicated e-health platform, the process for notification of birth and death is improved, and medical workers are more involved in the process. Developing an electronic platform to process vital events in consulates is expected to make it much easier to process identity information for Armenians living outside the country. Introducing an online platform to verify issued vital events certificates has shown value not only for officials in Armenia, but also abroad. Russian authorities have recognized it as a valid platform for verifying vital events certificates issued by Armenian authorities. ●

Endnotes

1   UNICEF 2012. https://www.unicef.org/infobycountry/armenia_statistics.html
     and http://sdg.armstat.am/16/

2   *Law on Acts of Civil Status.* 2004. www.parliament.am/legislation.php?sel=show&ID=2212&lang=rus

3   *Law on State Register of the Population.* 2002. www.legislationline.org/documents/id/18791

4   *Law on Identification Cards.* 2011. www.parliament.am/legislation.php?sel=show&ID=4348&lang=eng

5   *Law on Protection of Personal Data.* 2015. www.arlis.am/Annexes/4/Law_Personal_data_protection_
     EN.pdf